

# Model CDR632 User Guide

**CD** Recorder

CLASS 1 LASER PRODUCT LUOKAN 1 LASERLAITE KLASS 1 LASERAPPARAT



# Warnings and Cautions



### DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure. It may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

### WARNING

#### TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

#### CAUTION:

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

#### WARNINGS

- Do not expose the equipment to rain or moisture.
- Do not remove the cover from the equipment.
- Do not insert anything into the equipment through the ventilation holes.
- Do not handle the mains lead with wet hands.
- Do not cover the ventilation with any items such as tablecloths, newspapers, curtains, etc.
- No naked flame sources, such as lighted candles, should be placed on the equipment.
- When disposing of used batteries, please comply with governmental regulations or environmental public instruction's rules that apply in your country or area.
- Do not place anything about 0.1 meter above the top panel.
- Make a space of about 0.1 meter around the unit.
- No objects filled with liquids, such as vases, shall be placed on the apparatus.
- When the switch is in the OFF position, the equipment is not completely switched off from MAINS.

### Copyright

- Recording and playback of any material may require consent. For further information refer to the following US ordinances:
- · Copyright act of 1956
- Dramatic and Musical Performance Act 1958
- Performers Protection Acts 1963 and 1972
- · any subsequent statutory enactments and orders

#### - Important Safety Instructions

# Important Safety Instructions

# READ BEFORE OPERATING EQUIPMENT

This product was designed and manufactured to meet strict quality and safety standards. There are, however, some installation and operation precautions which you should be particularly aware of.

- 1. Read these instructions.
- 2. Keep these instructions.
- 3. Heed all warnings.
- 4. Follow all instructions.
- 5. Do not use this apparatus near water.
- 6. Clean only with dry cloth.
- 7. Do not block any ventilation openings. Install in accordance with the manufacture's instructions.
- 8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other.

A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.



- 10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11. Only use attachments/accessories specified by the manufacturer.
- 12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13. Unplug this apparatus during lightning storms or when unused for long periods of time.

- 14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- The apparatus should be located close enough to the AC outlet so that you can easily grasp the power cord plug at any time.
- Apparatus with Class I construction shall be connected to an AC outlet with a protective grounding connection.

#### Additional Safety Information!

- This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
- Apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.
- When the switch is in the OFF position, the apparatus isn't completely switched-off from the MAINS.

#### - Important Safety Instructions

#### NOTE TO CATV SYSTEM INSTALLER:

This reminder is provided to call the CATV (Cable-TV) system installer's attention to Article 820-40 of the NEC, which provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

#### NOTE:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at this own expense.

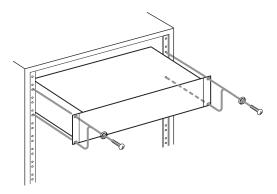
#### NOTE:

Changes or modifications may cause this unit to fail to comply with Part 15 of the FCC Rules and may void the user's authority to operate the equipment.

#### **Rack-mounting the Unit**

Use the supplied rack-mounting kit to mount the unit in a standard 19-inch rack, as shown below.

Remove the feet of the unit before mounting.



#### NOTE

- Leave 1U of space above the unit for ventilation.
- Allow at least 10 cm (4 in) at the rear of the unit for ventilation.
- The range of operating temperatures for this unit is 5–35 degrees C.
- Place this unit on a level surface.
- To allow for proper cooling, do not place objects on top of this unit.
- Do not place this unit on a power amp or other device that generates heat.

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la Classe A est conforme á la norme NMB-003 du Canada.

# 1 – Introduction

Thank you for purchasing the CDR632.

Before using the CDR632, please read this manual carefully, and use the product as directed to insure troublefree enjoyment. After you have read this manual, please keep it handy for future reference.

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#### Caution

Your use of copyrighted material such as music, movies, computer programs, and databases may be restricted by copyright law and other laws, and by the agreement that exists between you and the copyright owner. Before you use this product to copy any such material, please make sure that you are in compliance with such laws and agreements, and use this product in a way that does not violate them. The manufacturer of this product will accept no responsibility for any copyright infringement you may commit using this product.

# What this product consists of

This product consists of the following items.

- CDR632 rewritable recorder x 1
- RC632CDR remote control unit x 1
- Power cable x 1
- Audio cable x2
- Battery (AAA size) x 2

### **Conventions in this manual**

The following conventions are used in this manual.

• XXX

Indicates a value you can select.

Example: SRC> XXX (you can select ON/OFF)

•[]

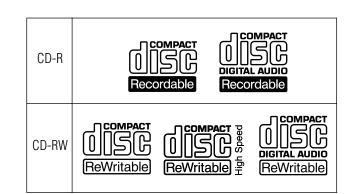
Refers to an indicator in the display. Example: **[SHUFFLE]** 

• ""

Indicates characters shown in the display. Example: "Open"

#### 1 – Introduction—About discs

# About discs



# Handle discs carefully so as not to damage or scratch the front side.

# To protect the disc, avoid placing it in the following locations:

- In direct sunlight or near a source of heat like a heater.
- In a place which is damp or dirty.
- In a place which could be exposed to rain, such as near a window.

#### Always keep the disc surface clean.

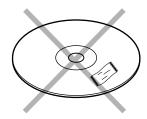
When cleaning the disc surface, always be sure to use a special compact disc cleaner and wipe as shown below.



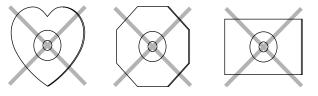
• Do not use conventional record cleaner for analog records, as this will adversely affect the disc surface.

Store discs properly by placing them in their disc cases.

• Do not attach a piece of paper or sticker on the label side of disc. When a disc has a piece of plastic tape or rental CD label with paste protruded from the edge or when a disc has a trace of such a sticky object, do not attempt to play the disc. If such a disc is played on the CD recorder, impossibility of taking out the disc or other malfunction may result.



• Do not use a disc with a special shape. Do not attempt to play a disc with a special shape such as a heart-shaped disc or octagonal disc. Otherwise the equipment malfunction may result.



# What is finalizing?

Even after audio data is recorded on a CD-R or CD-RW disc, it cannot be played back on a conventional CD player until the final TOC<sup>(\*)</sup> data has been recorded on the disc. The process of recording this TOC data is called "finalizing".

No further recording can be performed on a finalized disc. However in the case of a CD-RW, the disc can be "un-finalized" to allow additional recording ( $\rightarrow$  p.31).

\* TOC: Table of Contents = information about the recorded data, such as the number and playing times of the songs

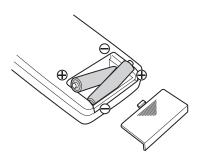
# Using the remote control unit

#### Cautions for use

- Remote control operations may not be possible if the remote control receiver is in direct sunlight or under intense illumination.
- Please be aware that operating the remote control unit may cause unintended operations to occur on other infrared-controlled equipment.

#### Installing the batteries

Open the cover on the back panel of the remote control unit, and install two batteries (AAA size) in the correct orientation as indicated by the "+" and "-" markings on the case.



#### When to replace the batteries

If the range of control has lessened, or if pressing a button does not produce an operation, please replace both batteries with new ones.

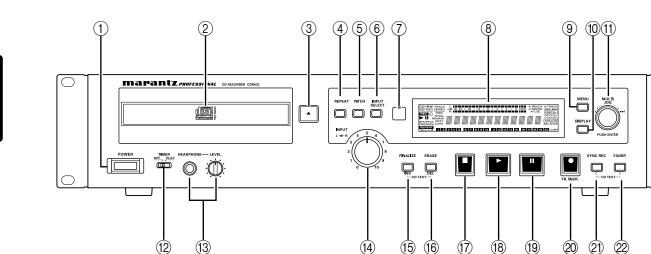
#### Caution regarding batteries

Incorrect use of batteries may cause leakage or bursting. Please carefully read and observe the following cautions.

- Be sure to insert the batteries in the correct orientation as indicated by the "+" and "-" markings on the battery case.
- Do not mix new batteries with old batteries, or batteries of differing types.
- Never attempt to recharge batteries.
- Remove the batteries if you won't be using the remote control unit for an extended period (more than one month).
- If leakage occurs, carefully wipe off any liquid from inside the case and install new batteries.

# 2 – Front and rear panel

# **Front panel**



#### 1 POWER switch

Turns the power on/off.

#### 2 Disc tray

Insert a disc (CD, CD-R, CD-RW) here.

#### $③ \triangleq (Open/Close) button$

Opens or closes the disc tray. The display will indicate "Open" when the tray is opened, or "Close" when the tray is closed.

#### **④ REPEAT button**

Switches the repeat playback function on/off.

#### **(5) PITCH button**

Switches pitch control on/off.

#### **(6) INPUT SELECT button**

Selects the input jacks that will be the recording source.

#### ⑦ Remote signal sensor

Receives commands from the RC632CDR (remote control unit). Be aware that if there are obstructions in front of this sensor, commands may not be received successfully.

#### **8** Display

Displays menus and the current operating status.

#### **9 MENU button**

Accesses the Menu mode ( $\rightarrow$  p.12) where you can use various menu items.

#### 10 DISPLAY button

Switches the time mode shown on the display. When entering text, this button switches the type of characters (upper or lower case) being input.

 $\bigcirc$ 

 $\bigcirc$ 

#### 1 MULTI JOG dial

This is used to select tracks or to edit the value of a setting. This dial can be pressed to operate as an ENTER button to finalize a selected menu item or an edited value.

#### 12 TIMER switch

Switches the timer playback function ( $\rightarrow$  p.19) on/off.

#### 13 HEADPHONE jack/LEVEL control

You can connect a set of stereo headphones to this jack. The LEVEL control located at the right adjusts the volume of the headphones.

#### (14) INPUT controls

This is a level control for the analog inputs. The outside ring controls the level of the left channel, and the inside knob controls the level of the right channel. Normally, turning one will cause both to turn together. However by holding one of them, you can adjust the left and right levels independently.

#### **15 FINALIZE/INS button**

Executes the Finalize operation for a disc ( $\rightarrow$  p.31). When entering text, this button inserts a space at the cursor location.

### 2 – Front and rear panel—Rear panel

### ② ● (record)/TR.INCR. button

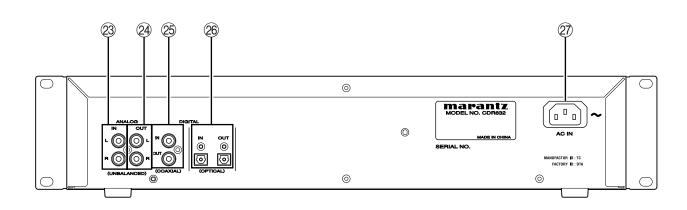
Selects record-ready mode. This button is also used to assign track numbers manually ( $\rightarrow$  p.30).

### 21) SYNC REC/< button

Switches the Sync Record function ( $\rightarrow$  p.27). When entering text, this button moves the cursor location toward the left.

#### 2 FADER/> button

Applies a fade-in/fade-out during recording ( $\rightarrow$  p.27). When entering text, this button moves the cursor location toward the right.



#### 3 ANALOG IN (UNBALANCED) jacks L/R

**(16) ERASE/DEL button** 

(17) (stop) button

(18) ► (play) button

(19) II (pause) button

**Rear panel** 

Stops recording or playback.

Starts recording or playback.

Pauses recording or playback.

When using a CD-RW disc, this button lets you

erase a track or the disc. When entering text, this

button deletes the character at the cursor location.

Connect these jacks to the unbalanced output of the unit you are using as a recording source.

#### ANALOG OUT (UNBALANCED) jacks L/R Connect these jacks to the unbalanced input of the unit you are using as your monitor system.

#### 25 DIGITAL IN/OUT (COAXIAL) jacks

These are digital input/output jacks that comply with IEC60958 Type II (S/PDIF).

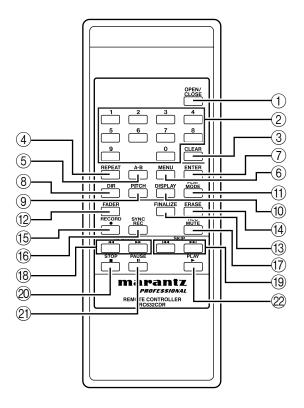
#### **26 DIGITAL IN/OUT (OPTICAL) jacks**

These are digital input/output jacks that comply with IEC60958 Type II (S/PDIF).

#### 27 AC IN (AC Power Inlet)

Connect the included power cable to this connector.

### RC632CDR (remote control unit)



#### **① OPEN/CLOSE button**

Performs the same function as the front panel  $\triangle$  Open/Close button (③).

#### 2 0–9 buttons

Use these buttons to enter track numbers or to make program playback settings.

#### **③ CLEAR button**

Cancels the number entered by the 0–9 buttons. When programming, this button deletes the most recently entered program.

#### **④ REPEAT button**

Performs the same function as the front panel REPEAT button (4).

#### **(5)** A-B button

Use this button for A-B Repeat Playback operations

 $(\rightarrow p.20).$ 

#### 6 MENU button

Performs the same function as the front panel MENU button (9).

#### **7** ENTER button

Performs the same function as when the front panel MULTI JOG dial (1) is pressed.

#### **8 DIR button**

Switches MP3 file directory playback ( $\rightarrow$  p.23) on/off.

#### **9 PITCH button**

Performs the same function as the front panel PITCH button (5).

#### 10 DISPLAY button

Performs the same function as the front panel DISPLAY button (10).

#### **(1) PLAY MODE button**

Switches the Playback modes ( $\rightarrow$  p.17).

#### 12 FADER button

Performs the same function as the front panel FADER/> button (22).

#### **13 FINALIZE button**

Performs the same function as the front panel FINALIZE/INS button ((5)).

#### (14) ERASE button

Performs the same function as the front panel ERASE/DEL button (16).

#### (15) RECORD ● button

Performs the same function as the front panel • (record)/TR.INCR. button (20).

#### **(6) SYNC REC button**

Performs the same function as the front panel SYNC REC/< button (21).

#### 17 REC MUTE button

Records approximately four seconds of silence. After the silence is recorded, the CDR632 will enter record-ready mode ( $\rightarrow$  p.30).

#### 18 SEARCH ◄◄, ►► buttons

Search through the disc forward (  $\rightarrow$  ) or backward (  $\triangleleft$ ).

#### 19 SKIP I◄◄, ►►I buttons

Perform the same function as turning the front panel MULTI JOG dial ((1)).

#### 20 STOP button

Performs the same function as the front panel (stop) button (7).

#### 2 PAUSE II button

Performs the same function as the front panel **(**pause) button ((19)).

#### 2 PLAY ► button

Performs the same function as the front panel  $\blacktriangleright$  (play) button (18).

# Audio signal connections

#### Input

Only the input jack(s) selected by the front panel INPUT SELECT (<sup>(6)</sup>) button will be used. Choose one of the following three sets of input jacks, and make the appropriate connections.

- ANALOG IN (UNBALANCED) jacks L/R (23)
- DIGITAL IN (COAXIAL) jack (25)
- DIGITAL IN (OPTICAL) jack (26)

The display indicates the currently selected input jack(s) ( $\rightarrow$  p.24).

### Output

Signals are output from all of the following three sets of output jacks. Connect the desired set(s) of output jacks.

- ANALOG OUT (UNBALANCED) jacks L/R
  (2)
- DIGITAL OUT (COAXIAL) jack (25)
- DIGITAL OUT (OPTICAL) jack (26)

# 3 - Menu mode operations

This section explains the basic procedures in Menu mode, where you can make various settings for the CDR632 and perform various editing operations.

### Menu structure

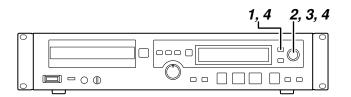
Menu mode is organized as follows. For details on each item, refer to the appropriate page.

Menu item	Function	Reference page
PLAY MODE	Select the playback mode	Playback modes $(\rightarrow p.17)$
PITCH CONT	Adjust the pitch control value	Pitch control playback ( $\rightarrow$ p.21)
PITCH STEP	Choose the step size for pitch control	Pitch control playback ( $\rightarrow$ p.21)
DIRECTORY	Specify directory playback of MP3 files	Specifying a directory for playback ( $\rightarrow$ p.21)
VOLUME	Adjust the input level of the digital signal	Basic recording operations ( $\rightarrow$ p.25)
FADE IN	Specify the fade-in time for recording	Fade-in/out ( $\rightarrow$ p.27)
FADE OUT	Specify the fade-out time for recording	Fade-in/out ( $\rightarrow$ p.27)
SRC	Enable the Sample Rate Converter	Using the sample rate converter ( $\rightarrow$ p.24)
SYNC LEVEL	Specify the level for sync recording	Sync recording $(\rightarrow p.27)$
AUTO_TRK	Select the auto track mode	Auto track recording $(\rightarrow p.29)$
A_TRK LEVEL	Specify the level setting for auto track operation	Auto track recording $(\rightarrow p.29)$
A_TRK TIME	Specify the time interval for auto track operation	Auto track recording $(\rightarrow p.29)$
M_TR INCR	Manually increment the track number	Manually updating the track number $(\rightarrow p.30)$
TEXT EDIT	Edit a CD title or track name	Entering a name $(\rightarrow p.34)$

## Basic operation in Menu mode

This section explains how to select items in Menu mode. You can perform these operations either from the front panel or the remote control unit.

### If using the front panel



# **1** Press the MENU button to enter Menu mode.

You will switch from normal mode (in which you perform normal playback and recording) to Menu mode, and the display will show the menu items.

**2** Turn the MULTI JOG dial to select a menu item.

#### **3** Press the MULTI JOG dial.

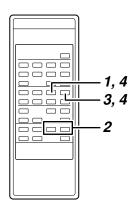
This will confirm your selection, and you will now be able to edit the menu item.

For details on how to operate each menu item, refer to the page given in the "Menu structure" table.

# **4** To return from Menu mode to normal mode, press the MENU button or the ENTER button.

The menu item you were editing will be finalized, and you will return to normal mode.

#### If using the remote control unit



# **1** Press the MENU button to enter Menu mode.

You will switch from normal mode to Menu mode, and the display will show the menu items.

#### 2 Use the SKIP buttons to select a menu item.

#### **3** Press the ENTER button.

This will confirm your selection, and you will now be able to edit the menu item.

For details on how to operate each menu item, refer to the page given in the "Menu structure" table ( $\rightarrow$  p.12).

**4** To return from Menu mode to normal mode, press the MENU button or the ENTER button.

The menu item you were editing will be finalized, and you will return to normal mode.

# 4 – Playback

This section explains how to playback CD/CD-R/CD-RW media inserted in the disc tray, and how to playback MP3 format audio files from media such as CD-ROM.

# Types of disc that can be played

The CDR632 can play the following types of disc.

- Commercial audio CDs recorded in CD-DA format
- CD-R/CD-RW discs recorded in CD-DA format
- CD-ROM/CD-R/CD-RW discs containing MP3 format files

#### Note

- The CDR632 can playback MP3 files that are recorded in ISO9660 level 1, level 2, or Joliet formats. It can also playback discs that were recorded as multisession discs.
- The following limitations apply to the number of MP3 files and directories.

Maximum number of directories: 255 Maximum number of layers: 8 Maximum number of MP3 files: 999 Maximum length of MP3 directory names, file names, and ID3 tags: 255 characters

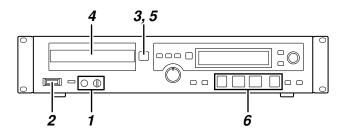
 Regarding MP3 track information During playback, this information is shown in the display with a priority order of ID3v2 > ID3v1 > file name. While stopped, the file name is shown.

#### Caution

MP3 files encoded with a sample rate other than 44.1 kHz cannot be played back correctly. The recommended format is 44.1 kHz sampling rate and 128 kbps or higher bit rate.

# **Basic playback operation**

This section explains the procedure for basic operations such as play, pause, and stop.



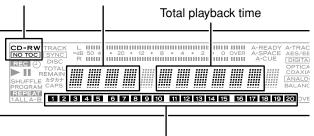
**1** If you're monitoring through headphones, connect your headphones to the PHONES jack and turn down the LEVEL control.

- **2** Press the POWER switch to turn on the power.
- 3 Press the ▲ (Open/Close) button to open the disc tray.
- **4** Place the disc on the tray with the label facing upward.
- 5 Press the ▲ (Open/Close) button to close the tray.

The display will indicate "Close". When the disc tray has closed completely, the display will change to "TOC Reading.".

When the disc has been read, the display will indicate the total number of tracks and the total playback time.

Disc type Total number of tracks



Track number indicator

The type of disc inserted is shown as follows.

- CD: Commercial audio CD
- CD-R: CD-R media
- CD-RW: CD-RW media
- NO TOC: CD-R or CD-RW media that has not been finalized

# 6 To start playback, press the ► (play) button.

Operate the connected monitor system or the HEADPHONE LEVEL control to adjust the monitor level appropriately.

To pause or stop, proceed as follows.

#### To pause playback

Press the || (pause) button. Press the  $\triangleright$  (play) button once again to resume playback.

To stop playback

Press the (stop) button.

#### Note

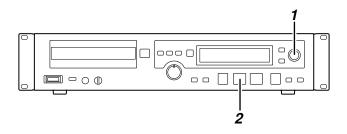
Unless otherwise specified, the explanations in this manual assume that the playback modes ( $\rightarrow$  p.17) is set to Continue Play.

14

# Selecting a song

Here's how to select a song when playing a CD that contains more than one track. You can select a song either by moving to the previous or next track (Skip) or by directly specifying a track number.

## Skipping



Here's how to skip to the previous or next track number.

**1** Use the MULTI JOG dial on the front panel (or the SKIP buttons on the remote control unit) to select tracks.

The dial or buttons operate as follows.

MULTI JOG dial

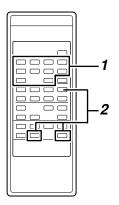
Turn the dial to the right to select the next track number, or to the left to select the preceding track number.

SKIP buttons

Press the  $\rightarrow$  button to select the next track number, or the  $i \triangleleft$  button to select the preceding track number.

2 Press the ► button on the front panel (or the PLAY button on the remote control unit). The selected track will begin playing. Instead of pressing the PLAY button, you can press the front panel II (pause) button (or PAUSE button on the remote control unit) to move to the beginning of the selected track and enter pause mode.

#### Specifying a track number



Here's how to use the 0–9 buttons on the remote control unit to directly specify the track number you want to play.

**1** Use the 0–9 buttons on the remote control unit to enter a track number (maximum three digits).

Enter the track number starting with the highest-place digit.

To specify track 1

Press the 1 button once.

- To specify track 12 Press the 1 button  $\rightarrow$  2 button in that order
- To specify track 103 Press the 1 button -> 0 buttor

Press the 1 button  $\rightarrow$  0 button  $\rightarrow$  3 button in that order.

# **2** Press the PLAY button on the remote control unit.

The selected track will begin playing. If you press the PAUSE button on the remote control unit instead of the PLAY button, you will move to the beginning of the selected track and enter pause mode.

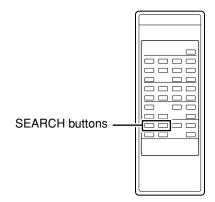
#### Note

- You can also confirm your track selection by pressing the ENTER button instead of the PLAY button.
- You can't use the numeric buttons to specify a track number in Program or Shuffle mode.

### Track search

During playback (or while paused), you can search to find the portion of the track you want to hear. You can search either in the normal way by fast-forwarding/ rewinding while listening to the audio, or by directly specifying a track or time and moving to that point (direct search).

#### Normal search



Here's how to use the remote control unit SEARCH buttons to search through a track while listening to the audio.

- **1** Play or pause the desired track.
- **2** Hold down one of the SEARCH buttons on the remote control unit.

Search will begin in either the forward ( ►► ) or reverse ( ◄◄ ) direction.

**3** To stop searching, release the SEARCH button.

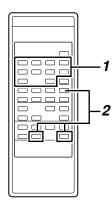
You will return to the state (playing or paused) in which you were before searching.

#### Note

You cannot use normal search in an MP3 file.

### **Direct search**

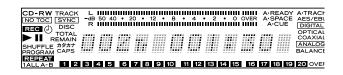
Here's how to search by directly specifying the desired track or time (direct search).



- **1** To perform a direct search, use the 0–9 buttons on the remote control unit to enter an eight-digit number as follows.
  - Track number (three digits)
  - Elapsed time (minutes) from the beginning of the track (three digits)
  - Elapsed time (seconds) from the beginning of the track (two digits)

For example to specify the location at 1 minute 30 seconds into track 2, press the buttons in the following order.

 $0 \rightarrow 0 \rightarrow 2 \rightarrow 0 \rightarrow 0 \rightarrow 1 \rightarrow 3 \rightarrow 0$ 



You will immediately move to the specified location as soon as you finish entering the eight digits.

#### Note

- You can use direct search whether the track is stopped, playing, or paused.
- If you perform direct search while stopped or playing, playback will begin from the location you specify. If you perform direct search while paused, the disc will be paused at the location you specify.
- You can't use direct search in Program or Shuffle mode.

#### Caution

- If an MP3 disc is inserted, you will not be able to specify a time location within a track. The specified track will play when you enter the track number (the first three digits).
- If you specify a track number or time that does not exist on the currently inserted disc, the search operation will be cancelled at that point.

2 If you want to specify only the track number, or the track number and the minutes, enter the desired digits and press the ENTER button on the remote control unit (or the PLAY or PAUSE button).

#### If you specify only the track number

If you specify the track number (up to three digits) and then press the ENTER button on the remote control unit (or the PLAY or PAUSE button), direct search will be executed. The minutes and seconds digits will all be zero.

#### Note

If you use this method to specify a track, you may omit the 0 or 00 at the beginning. For example, press 2 to select track 2, or press 1 and then 2 to select track 12, and then press the ENTER button (or the PLAY or PAUSE button).

If you use the ENTER button to perform direct search while stopped or playing, playback will begin from the location you specify. If you perform direct search while paused, the disc will be paused at the location you specify.

If you press the PLAY button to perform direct search, playback will begin immediately from the location where you moved. If you press the PAUSE button, the disc will be paused at the location where you moved.

#### Note

This operation is the same as "Specifying a track number" ( $\rightarrow$  p.15).

# If you specify a track number and minutes position

If you specify the track number and the starting location in minutes (a total of six digits) and then press the ENTER button on the remote control unit (or the PLAY or PAUSE button), direct search will be executed. In this case, the seconds digits will be zero. The operation when you press each button will be the same as when you specify only the track number. For example to specify the location at 1 minute 00 seconds into track 2, press the buttons in the following order.

 $0 \rightarrow 0 \rightarrow 2 \rightarrow 0 \rightarrow 0 \rightarrow 1 \rightarrow \text{ENTER}$  button on the remote control unit (or PLAY or PAUSE button)

#### Note

When using this method to specify the location, you can omit the leading zero of the minutes. In the example above, press the buttons in the order of  $0 \rightarrow 0 \rightarrow 2 \rightarrow 1$  and then press the ENTER button (or the PLAY or PAUSE button).

### **Playback modes**

On the CDR632 you can use one of four different playback modes. The following playback modes are available.

#### Continue playback (default setting)

Tracks will playback consecutively as their number.

#### Note

Unless otherwise specified, the explanations in this manual assume that playback mode is selected.

#### Single playback

Only one track will play, and then playback will stop.

#### **Program playback**

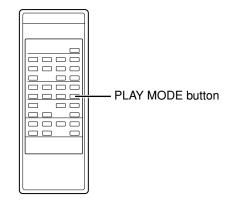
Tracks will play in the order you specify.

#### Shuffle playback

All tracks on the disc will play in a random order regardless of the track number.

You can switch the playback mode either by using the PLAY MODE button on the remote control unit or by using MENU button.

#### Using the remote control unit buttons



**1** While stopped, press the PLAY MODE button on the remote control unit repeatedly.

The mode will change each time you press the button. The display will indicate the currently selected playback modes as follows.

Display	Playback modes
Continue	Continue playback
Single	Single playback
Program	Program playback
Shuffle	Shuffle playback

ENGLISH

#### 4 - Playback—Playback modes

# **2** The previous display will reappear shortly after you stop operating the PLAY MODE button.

With the exception of Continue playback mode, the playback mode is shown as follows in the left part of the display.

Normal playback	No indication
Single playback	[ <b>1</b> ] is lit
Program playback	[PROGRAM] is lit red
Shuffle playback	[SHUFFLE] is lit red

#### Using menu mode

- **1** While stopped, access the "PLAY MODE?" menu item as described in "Basic operation in Menu mode" ( $\rightarrow$  p.12), and press the [ENTER] button.
- **2** Turn the MULTI JOG dial to select the desired playback mode.

The playback mode you selected is shown immediately. The display will show the currently selected mode as follows.

Display	Playback modes
Mode>Cont	Continue playback
Mode>Single	Single playback
Mode>Program	Program playback
Mode>Shuffle	Shuffle playback

**3** To return from menu mode to normal mode, press the MENU button or the ENTER button.

#### Caution

The playback mode you selected is remembered even if you turn off the power. However, the program you specified in program playback mode will be erased when you turn off the power.

### **Continue playback**

This is the standard mode, in which tracks will playback consecutively in order of their track number.

**1** While stopped, set the playback mode to "Continue" or "Mode>Cont".

For the procedure refer to "Playback modes" ( $\rightarrow$  p.17).

2 Press the ► (play) button on the front panel (or the remote control unit).

Playback will occur in the order of the track number.

#### Single playback

In this playback mode only one track will playback.

**1** While stopped, set the playback mode to "Single".

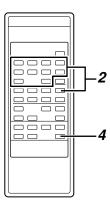
For the procedure refer to "Playback modes" ( $\rightarrow$  p.17).

- **2** As necessary, use the SKIP buttons on the remote control unit, the 0–9 buttons on the remote control unit, or the MULTI JOG dial on the front panel to select the track you want to playback ( $\rightarrow$  p.15).
- **3** Press the ► (play) button on the front panel (or remote control unit).

Only one track will playback, and then playback will stop.

#### **Program playback**

In this playback mode, tracks will playback in the order you specify beforehand. You can program up to 99 tracks for playback.



**1** While stopped, set the playback mode to "Program".

For the procedure refer to "Playback modes" ( $\rightarrow$  p.17).

2 Use the 0–9 buttons on the remote control unit to enter the track number you want to program, and press the ENTER button to confirm it.

The track number will be programmed.

#### Note

Alternatively, you can select a track by turning the MULTI JOG dial and then press the ENTER button to program it.

**3** Repeat step 2 to program the other tracks you want to play.

#### Note

• You may program the same track more than once.

- You can press the CLEAR button on the remote control unit to delete the most recently programmed track from the program data.
- **4** Press the PLAY button to begin program playback.

#### Caution

- In this playback mode, playback is not possible unless at least one track has been programmed.
- If you press the STOP button while stopped, all of the program data will be erased.
- If you change the playback mode while stopped, all of the program data will be erased.
- If you turn off the power of the CDR632, all of the program data will be erased.

#### Note

- If you attempt to program 100 or more songs, an error message of "PGM Full!" will appear. You can program a maximum of 99 songs.
- If the total playback time of the programmed tracks exceeds 999 minutes 59 seconds, the display will indicate "---: ---".

#### Shuffle playback

This mode plays all tracks in a random order.

**1** While stopped, set the playback mode to "Shuffle".

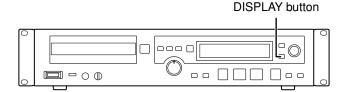
For the procedure refer to "Playback modes" ( $\rightarrow$  p.17).

2 Press the ► (play) button on the front panel (or remote control unit).

All tracks will play in a random order, regardless of their track number.

# Switching the time display

Here's how to switch the time display.



Press the DISPLAY button on the front panel (or the remote control unit).

Each time you press the button, you will cycle through the following four types of time display. The currently selected display type is shown by the following indicators.

### 4 – Playback—Switching the time display

#### No indication

The elapsed time of the current track is displayed.

### [REMAIN] lit

The remaining time of the current track is displayed.

#### [TOTAL] lit

The elapsed time of the disc is displayed.

#### [TOTAL] and [REMAIN] lit

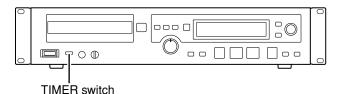
The remaining time of the disc is displayed.

#### Note

- While stopped, the total recorded time of the disc is always displayed, regardless of how the [TOTAL] and [REMAIN] indicators are lit.
- In program mode, the elapsed time or remaining time of the entire program (not the entire disc) is displayed.
- When playing an MP3 file, the elapsed track time is always displayed. The DISPLAY button is not used.
- For details on the time display during recording or in record-ready mode, refer to "Switching the time display" in the "Recording" section (→ p.24).

# Timer playback

Timer playback is a function that automatically starts playback when the power is turned on. By using this function, you can use a commercially available timer to turn on the power of the CDR632, and start playback at a desired time.



- **1** Connect the CDR632 to your timer so that power is supplied from the timer to the CDR632.
- 2 Insert the disc that you want to play.
- 3 To turn on the timer playback function, set the CDR632's TIMER switch to PLAY. When the timer playback function is on, the timer indicator in the display will light.

#### Note

The timer indicator will blink if no disc is inserted.

#### **4** Set your timer to the desired time.

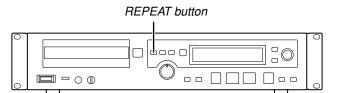
The CDR632 will turn on at the time specified by your timer, and playback will begin automatically.

# **Repeat playback**

Here's how you can repeatedly play all tracks of the currently inserted disc, or repeatedly play a specified region within a track (A-B Repeat Playback).

### Normal repeat playback

All tracks on the disc will play repeatedly.



**1** Press the REPEAT button on the front panel (or the remote control unit) to turn on the repeat playback function.

The display will indicate "Repeat ON" and the **[REPEAT]** indicator will light.

In this state, all tracks on the disc will play repeatedly.

During playback, if the Repeat mode is turned on, playback continues as before, and when the last track finishes, playback resumes from the first track. If Repeat mode is turned on when the disc is stopped, press the  $\blacktriangleright$  (play) button to begin operation.

**2** To turn off the repeat play function, press the REPEAT button on the front panel (or the remote control unit) once again.

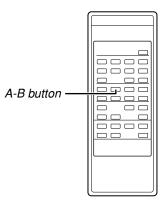
The display will indicate "Repeat OFF" and the [REPEAT] indicator will go dark.

#### Note

Combining the repeat mode with the program playback, single-track playback and shuffle playback functions will enable program repeat, single-track repeat and shuffle repeat operations, respectively.

### A-B repeat playback

The region (A-B) you specify within a track will play repeatedly.



1 During playback, press the A-B button on the remote control unit at the point (A) where you want to start A-B repeat playback.

The **[REPEAT]** indicator in the display will light, and the **[A-B]** indicator will blink.

2 At the point where you want repeat playback to end (B), press the A-B button on the remote control unit once again.
 In addition to the [REPEAT] indicator in the display, the [A-B] indicator will also light.
 The region (A-B) has now been specified, and A-B repeat play will begin.

#### Note

Alternatively, you can pause the playback and then specify the start (A) and end (B) points.

**3** To turn off the A-B repeat playback function, press the A-B button or the repeat button on the remote control unit.

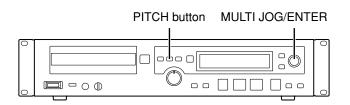
The **[REPEAT]** indicator and **[A-B]** indicator in the display will go dark, and A-B repeat playback will be cancelled. If you cancelled during playback, playback will continue even the point specified as the end of A-B repeat play is passed.

#### Caution

- The specified region (A-B) will be erased if you press the STOP button.
- You can't use the A-B repeat playback function in an MP3 file.
- You can't use the A-B repeat playback function across two or more tracks.

# Pitch control playback

The CDR632 has a pitch control playback function that lets you adjust the pitch (and speed) of the playback.



#### Caution

Pitch control does not work for MP3 files.

**1** To turn pitch control playback on, press the PITCH button on the front panel (or the remote control unit).

The current pitch change value is shown as a percentage, and after a time the previous display will reappear.

- 2 As described in "Basic operation in Menu mode" (→ p.12), access the "PITCH CONT?" menu item and press the ENTER button. The display will indicate "Pitch> XXX%" (adjustable in a range of -16.0 to 0.0 to +16.0).
- **3** Turn the MULTI JOG dial to adjust the amount of pitch change.

#### Note

You can use the "PITCH STEP?" menu item to adjust the steps in which this adjustment will occur, in a range of 0.1%–1.0%.

- **4** Press the MENU button or the ENTER button to return from menu mode to normal mode.
- **5** To temporarily turn off pitch control playback, press the PITCH button on the front panel (or the remote control unit).

The display will indicate "Pitch OFF" and the pitch control playback function will be turned off. To turn it back on, press the same button once again.

#### Caution

Please note that if you turn the pitch control playback function on/off during playback, the audio playback may be momentarily interrupted.

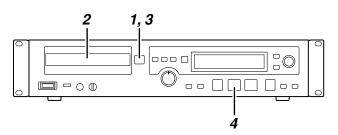
# **Playing MP3 files**

Here's how to play a disc that contains MP3 files (an MP3 disc).

When playing back an MP3 disc, you can use either of two modes; a mode in which all MP3 files on the disc can be played, or "directory mode" in which only the MP3 files in a specific directory (folder) will be available for playback.

### Playing back all MP3 files

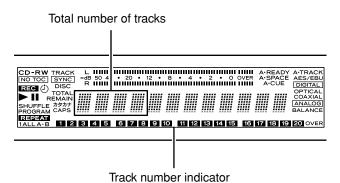
The CDR632 can playback an MP3 disc in the same way as a conventional disc.



- Press the ▲ (Open/Close) button to open the disc tray.
- **2** Place the disc on the tray with the label facing upward.
- **3** Press the ▲ (Open/Close) button to close the disc tray.

The display will indicate "Close" and when the disc tray has closed completed the display will change to "TOC Reading.".

When the contents of the disc have been read, the **[TRACK]** indicator in the display will light, and the total number of tracks on the MP3 disc will be displayed. The total playback time is not displayed.



### 4 – Playback—Playing MP3 files

#### Caution

MP3 files converted at a sampling rate other than 44.1 kHz cannot be played correctly. The recommended format is a 44.1 kHz sampling rate and a bit rate of 128 kbps or higher.

#### Note

- For a disc on which MP3 files are stored, each MP3 file is handled as a "track".
- Even if the MP3 disc is internally divided into multiple directories (a hierarchical structure), all MP3 files including those in sub-directories and sub-sub-directories will be read.
- Track numbers are assigned automatically, starting with MP3 files in the root directory (the top level of the disc).
- 4 To begin playback, press the ► (play) button.

The MP3 will playback.

#### Note

- You can select songs in the same way as when operating a conventional disc.
- You can use program playback and repeat playback (except for A-B repeat playback) in the same way as on a conventional disc.
- If you press the ENTER button during playback or while paused, the ID3 tag of the MP3 file is displayed. If there is no ID3 tag, the file name is displayed.

#### Caution

You can't search through a track on an MP3 disc.

### Specifying a directory for playback

Here's how to use directory mode, in which you can playback the MP3 files within a specified directory of the MP3 disc.

#### <About directory playback>

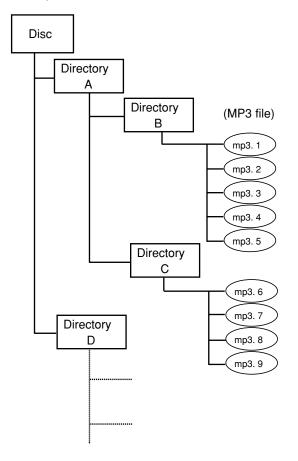
A directory (also called a "folder") is a hierarchical level on CD media or a hard disk.

If directory mode is on, only the files within the selected directory will be the target of your operations, and functions such as program playback and repeat playback will all occur within the same directory.

If directory mode is off, the directory structure of the disc is ignored, and all MP3 files on the disc will be subject to playback.

#### Note

- For a disc on which MP3 files are stored, each MP3 file is handled as a "track".
- Directories that do not contain MP3 files cannot be selected for operations. For example in the illustration below, directories B and C contain MP3 files and can be selected for operations, but directory A is excluded from operations.



#### Caution

If you turn directory mode on, the MP3 files in the root directory (the top level that contains directory A and directory D in the above illustration) cannot be played.

### **Directory playback settings**

Here's how to turn directory mode on/off and perform operations in directory mode.

#### Note

In the explanation below, we use menu mode to switch directory mode on/off, but you can also do this by pressing the DIR button on the remote control unit.

 As described in "Basic operation in Menu mode" (→ p.12), access the "DIRECTORY?" menu item and press the MULTI JOG dial.

The display will indicate "DIR> XXX" (you can select ON or OFF).

**2** Turn the MULTI JOG dial to turn directory mode on/off.

If you turn this on, the **[DISC]** indicator in the display will light.

- **3** Press the MENU button to return from menu mode to normal mode.
- 4 To select the desired directory for operations, use the MULTI JOG dial (or the SKIP buttons on the remote control unit) while stopped.

The display will indicate "DIR XXX" (you can select the directory number).

The previous display will reappear a short time after you stop operations. The directory that had last been displayed will be selected for operations.

#### Note

- Directories that do not contain MP3 files are excluded from operations and will not be displayed. This means that the selectable directory numbers may not be consecutive.
- While stopped, you can press the ENTER button to view the name of the currently selected directory.
- **5** Press the ► (play) button on the front panel (or remote control unit).

Playback will start within the selected directory. Functions such as program playback or repeat playback will all occur within the same directory.

#### Note

During playback, you can use the MULTI JOG dial (or the SKIP buttons on the remote control unit) to select tracks (MP3 files).

# 5 – Recording

This section explains how to record on CD-R/CD-RW media inserted in the disc tray, and how to use various recording functions.

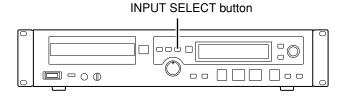
## Before you record

Understanding the following points will help you avoid unnecessary problems when recording. Before recording, please take a moment to read these.

- The CD specification allows no more than 99 tracks (songs) to be recorded on a disc. Also, it is not possible to record a song that is shorter than four seconds.
- If you press the STOP button or PAUSE button less than four seconds after you start recording, the recorder will stop or enter record-ready mode only after four seconds have elapsed. Silence will be recorded during this time.
- If the number of songs reaches 99 during recording, the display will indicate "Disc Full!" and "PMA Writing" and then the recorder will stop.
- If the available recording time of the disc is completely used up while recording, a fade-out will be performed. Then the display will indicate "Disc Full!" and "PMA Writing" and the recorder will stop.
- If you insert a disc that has been partially recorded (and not yet finalized), recording will continue following the already-recorded portion.
- If you want to record additional material on a CD-RW that has already been finalized, you can unfinalize the disc (→ p.31).

### Selecting the input signal

You can select one of the following three input signals (recording sources).



Press the INPUT SELECT button on the front panel to select the recording source.

Each time you press the button, you will cycle between the following three recording sources. The currently selected recording source is shown by the state of the following indicators.

#### [ANALOG] lit

The input signal of ANALOG IN (UNBALANCED) jacks L/R is selected as the recording source. The display will briefly indicate "Analog".

#### [DIGITAL] and [OPTICAL] lit

The input signal of the DIGITAL IN (OPTICAL) jack is selected as the recording source. The display will briefly indicate **"Optical"**.

#### [DIGITAL] and [COAXIAL] lit

The input signal of the DIGITAL IN (COAXIAL) jack is selected as the recording source. The display will briefly indicate "Coaxial".

### Using the sample rate converter

The CDR632 always records at 44.1 kHz (the CD sampling rate). If you wish to digitally record a signal of a different sampling rate from a DIGITAL IN jack (OPTICAL/COAXIAL), you must turn on the sample rate converter (SRC) as follows.

1 As described in "Basic operation in Menu mode" (→ p.12), access the "SRC?" menu item and press the ENTER button. The display will indicate "SRC> XXX" (you

can select ON or OFF).

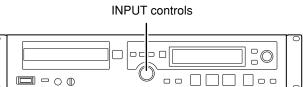
- 2 Turn the MULTI JOG dial to turn the SRC on/ off.
- **3** To return from menu mode to normal mode, press the MENU button or the ENTER button.

#### Note

- If a signal is being received from the DIGITAL INPUT jack (OPTICAL/COAXIAL) when the SRC is off, the [DIGITAL] indicator on the display will blink while recording, record-ready, or monitoring.
- Digital signals other than 44.1 kHz cannot be recorded if the SRC is off. If you attempt to record, an error message of "Not Fs44.1K!" is displayed.

# Adjusting the input signal

Here's how to adjust the level of the input signal.



**1** Make sure that your recording source (e.g., playback unit) is connected to the jack(s) you selected as the recording source.

#### 5 – Recording—Basic recording operations

#### **2** If the recording source is analog ([ANALOG] lit), use the INPUT controls to adjust the level received from the connected playback unit.

Set the level as high as possible without allowing the meters shown in the upper part of the display to reach the clipping point.



The outer part of the INPUT controls adjusts the level of the left channel, and the inner part adjusts the level of the right channel. Normally, both parts will move in tandem when you move one part, but you can adjust the left and right levels individually by holding down one part while you move the other.

#### Caution

The INPUT control setting has no effect if the recording source is a digital signal.

#### Note

The INPUT control adjusts the level of the input signal from the ANALOG IN (UNBALANCED) L/R jacks before it is converted to a digital signal.

- **3** Use the following procedure to set the level (digital volume) that is recorded on the disc.
  - As described in "Basic operation in Menu mode" (→ p.12), access the "VOLUME?" menu item and press the ENTER button. The display will indicate "Vol> XXXdB" (adjustable in a range of -54.0 to 0.0 to +18.0).
  - (2) Turn the MULTI JOG dial to set the recording level.

If an analog signal is being input, the ideal is to adjust the level in step 2 using the INPUT controls, and set the digital volume at 0 dB. If a digital signal is being input, use this setting to compensate when the level of the signal is too low or too high.

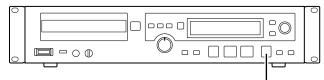
#### Caution

Be aware that the signal will clip if you raise the digital volume inappropriately.

③ Press the MENU button or the ENTER button to return from menu mode to normal mode.

### Monitoring the input signal

Here's how to monitor the input signal.



<sup>(</sup>record)/TR.INCR. button

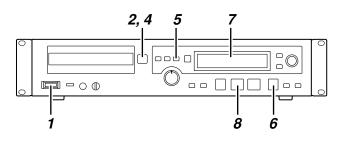
1 With no disc inserted, press the ● (record)/TR.INCR. button on the front panel (or the RECORD button on the remote control unit).

The display will indicate "Monitor" and input signal monitoring will be enabled.

2 To defeat monitoring of the input signal, press the ■ (stop) button on the front panel (or the remote control unit).

## **Basic recording operations**

This section explains how to insert a disc and record.



- **1** Press the POWER switch to turn on the power.
- 2 Press the ▲ (Open/Close) button to open the disc tray.
- **3** Place a writable disc on the tray with the label facing upward.
- 4 Press the ▲ (Open/Close) button to close the disc tray.

The display will indicate "Close". When the disc tray has closed completely, the display will switch to "TOC Reading.".

If you inserted a blank disc, the display will indicate "Blank Disc".

# **5** Press the INPUT SELECT button to select the recording source.

For details on recording sources, refer to "Selecting the input signal" ( $\rightarrow$  p.24).

#### 5 - Recording—Switching the time display

# 6 Press the ● (record) button to enter record-ready mode.

The **[REC]** and **[ II ]** will light, and the display will indicate "Now OPC.".

#### Note

- "OPC" stands for Optimum Power Control. This is a function that optimizes the power of the laser used to record the disc.
- If a digital signal is recorded as the recording source but no signal (or an inappropriate signal) is being input, an error message of "D-IN UNLOCK!" is displayed.

#### 7 Adjust the input level.

For details on the input level, refer to "Adjusting the input signal" ( $\rightarrow$  p.24).

Set the level as high as possible without allowing the **[OVER]** indication of the meters shown in the upper part of the display to light.

Clipping will produce digital noise if **[OVER]** lights. Be aware that unlike the case of analog recording, there is no headroom beyond the **[0]** point of the meter.

#### Note

• When recording a CD, we recommend that as a general rule you set the menu mode VOLUME at "0.0 dB". This allows you record the recording-source CD without clipping.

# **8** To start recording, press the ► (play) button.

Input a signal from the playback unit etc. you've connected as the recording source.

If you want to stop or pause recording, proceed as follows.

#### To pause recording

Press the || (pause) button. Press the  $\triangleright$  (play) button once again to resume recording.

#### To stop recording

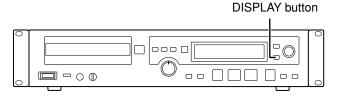
Press the (stop) button. The display will indicate "PMA Writing" and the recorded content will be written to the disc.

#### Caution

- While the display indicates "PMA Writing" the recorded content is being written to the disc. button operations are disabled during this time.
- Never subject the CDR632 to severe vibration or turn off the power while the "PMA Writing" indication is shown. The recorded content will not be written correctly if you do so.

### Switching the time display

Here's how to switch the time display during recording (or in record-ready mode).



During recording (or in record-ready mode), press the DISPLAY button on the front panel (or the remote control unit).

Each time you press the button, you will cycle through the following four types of time display. The currently selected display type is shown by the following indicators.

#### No indication

The elapsed recording time of the current track is displayed.

#### [REMAIN] lit

The remaining recordable time of the disc is displayed.

#### [TOTAL] lit

The total elapsed recording time of the entire disc is displayed.

#### [TOTAL] and [REMAIN] lit

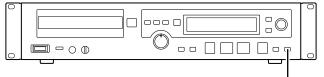
The remaining recordable time of the disc is displayed.

#### Note

For details on the time displays while playing or paused, refer to "Switching the time display" in the "Playback" section ( $\rightarrow$  p.14).

# Fade-in/out

When recording, you can fade-in the input signal from silence to the specified level, or fade-out from the current level to silence. The fade-in/out times can be specified independently.





1 As described in "Basic operation in Menu mode" ( $\rightarrow$  p.12), access the "FADE IN?" menu item and press the ENTER button.

The display will indicate **"Fade In> XXs"** (you can select 1–30).

Here you can specify the fade-in time.

- **2** Turn the MULTI JOG dial to specify the fadein time.
- **3** Press the MENU button to return from menu mode to normal mode.

By selecting the **"FADE OUT?"** menu item in step 1, you can specify the fade-out time in the same way.

**4** To execute a fade-in, press the FADER button on the front panel (or the remote control unit) from record-ready mode.

Recording will begin at the same time as the fadein, and the display will indicate "Fade In".

**5** To execute a fade-out, press the FADER button on the front panel (or the remote control unit) during recording.

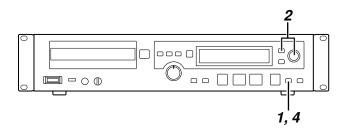
The fade-out will begin, and recording will stop when the fade reaches silence. The display will indicate **"Fade Out"** while the fade-out is occurring.

#### Note

You are able to operate fade-out during a fade-in, or fadein during a fade-out.

# Sync recording

Sync recording makes recording begin automatically when the input signal exceeds a specified level (the sync level) and end automatically when silence is detected at the end.



 After entering record-ready mode (→ p.25), press the SYNC REC button repeatedly to select "Sync ALL" or "Sync 1".

Each time you press the button, the display will cycle through the following settings: "Sync ALL" (repeatedly sync-record the input source)  $\rightarrow$  "Sync 1" (sync-record only once)  $\rightarrow$  "Sync OFF" (sync-record is off).

If "Sync ALL" is selected, the [SYNC] indicator in the display will light, and the CDR632 will be ready to sync-record.

If "Sync 1" is selected, the **[SYNC]** indicator in the display will blink, and the CDR632 will be ready to sync-record.

- **2** If necessary, you can adjust the sync level as follows.
  - (1) As described in "Basic operation in Menu mode" (→ p.12), access the "SYNC LEVEL?" menu item and press the MULTI JOG dial.

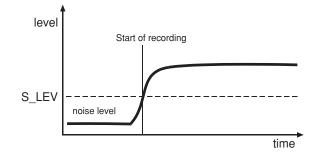
The display will indicate "S\_LEV> XXXdB".

- (2) Turn the MULTI JOG dial to set the sync level. The range is -24 dB to -72 dB (6 dB steps).
- (3) Press the MENU button or ENTER button to exit menu mode.

#### 5 - Recording—Sync recording

#### **3** Begin playback on input source unit.

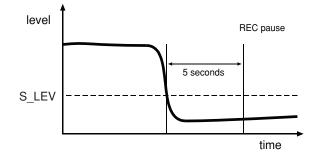
After playback is begun on input source unit, the CDR632 will start recording automatically when it detects audio signal which is above the sync level adjusted in step 2. However, after Sync1 or Sync ALL is selected, and if the signal below the adjusted sync level is not detected over one second, the CDR632 will not begin recording automatically even it detects the audio signal.



#### Note

In this manual, we refer to audio below the currently specified sync level as "silence".

When five seconds of silence occurs, the CDR632 will automatically enter record-ready mode. If you selected "Sync 1", the sync recording setting will be defeated.

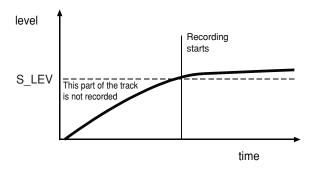


# **4** To cancel sync recording, press the SYNC REC button to select Sync OFF.

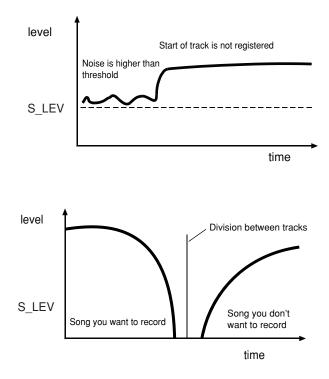
#### Note

- If "Sync 1" is selected, pressing the **II** (pause) button will stop the disc and defeat the sync recording setting.
- If "Sync ALL" is selected, pressing the **II** (pause) button will enter record-ready mode, but the sync recording setting will be maintained.
- In either case, the sync recording setting will be defeated if you stop by pressing the (stop) button.

If the sync level setting is too high, you may lose the first part of a song that begins softly.



Conversely, you should be aware that if the sync level setting is too low, the noise level of an analog source may be higher than the sync level, so that sync recording fails to start.



#### 5 - Recording—Auto track recording

# Auto track recording

Auto track recording is a function that automatically updates the track number when the specified condition occurs.

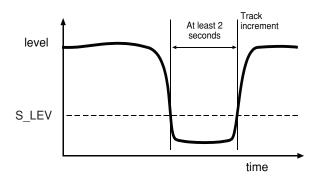
#### **1** Select the auto track mode as follows.

- (1) As described in "Basic operation in Menu mode" (→ p.12), access the "AUTO\_TRK?" menu item and press the ENTER button. The display will indicate "A\_Trk> XXX".
- (2) Use the MULTI JOG dial to select one of the following modes.

#### Level

The track number will be updated when the signal exceeds the specified auto track level after being below this level for two seconds or longer.

To specify the auto track level, use the "A\_TRK LEVEL?" menu item. You can specify this level in the range of -24 dB to -72 dB (6 dB steps). When A\_Trk=Level, the [A•TRACK] indicator in the display will light.



#### Digi

When recording a digital source (CD, DAT, MD), the track number will be updated when a track boundary has been detected in the source. When A\_Trk=Digi, the **[A•TRACK]** indicator in the display will light.

However if an analog source is being recorded even though Digi is selected, or when recording a digital source other than the above, the track number will be updated according to the input level in the same way as with the "Level" setting described above.

#### Minute

The track number will be updated when the specified length of time has elapsed after recording began. Use the "A\_TRK TIME?" menu item to specify this length of time.

When A\_Trk=Minute, the **[A•TRACK]** indicator in the display will light.

The **[A•TRACK]** indicator will blink while recording and in record-ready mode.

- 2 If you selected "Level" as the auto track mode, proceed as follows to set the auto track level.
  - (1) As described in "Basic operation in Menu mode" (→ p.12), access the "A\_TRK LEVEL?" menu item and press the ENTER button.
  - ② Turn the MULTI JOG dial to set the auto track level in a range of -24 dB to -72 dB (6 dB steps).
  - ③ Press the MENU button or ENTER button to exit menu mode.
- **3** If you selected "Minute" as the auto track mode, proceed as follows to specify the time interval for updating the track number.
  - As described in "Basic operation in Menu mode" (→ p.12), access the "A\_TRK\_TIME?" menu item and press the ENTER button. The display will indicate "TR\_TIME>XXm".
  - 2 Turn the MULTI JOG dial to select "1m" (1 minute), "5m" (5 minutes), "10m" (10 minutes), "15m" (15 minutes), or "30m" (30 minutes) as the time interval.
  - ③ Press the MENU button or ENTER button to exit menu mode.

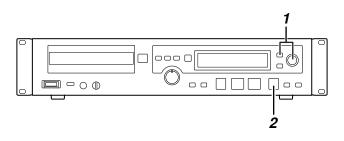
In this condition, the track number will be updated when the input signal meets the specified conditions, or when the specified interval of time has elapsed since recording began.

#### Note

You can't change the TR\_TIME setting during recording.

# Manually updating the track number

If you want to update the track number manually, proceed as follows.



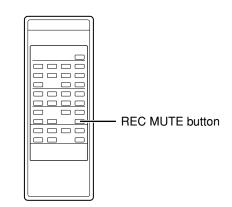
- **1** Take the following steps to enable manual track number updating.
  - As described in "Basic operation in Menu mode" (→ p.12), access the "M\_TR INCR?" menu item and press the ENTER button. The display will indicate "TR\_INCR> XXX" (you can select ON or OFF).
  - (2) Turn the MULTI JOG dial to select ON.
  - ③ Press the MENU button or the ENTER button to exit menu mode.
- 2 Press the (record) button at the point where you want to assign a track number. The track number will be updated.

#### Note

This button is disabled while track number 99 is being recorded.

### **Rec mute**

This function makes it easy to record a silent interval. To do so, press the remote control unit REC MUTE button during recording.



The display will indicate "Rec Mute" and muted recording will begin. After approximately four seconds, the recorder will enter record-ready mode.

#### Note

The rec mute function can be controlled only from the remote control unit.

# ENGLISH

# 6 - CD-R/CD-RW disc operations

#### Caution

Be careful that the power is not accidentally turned off while the finalize, un-finalize, refresh, or disc/track erase operations are being executed. If this occurs, the data on the disc will be corrupted, and it is also possible that the disc itself will become unusable.

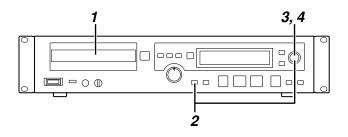
This section explains various operations that you can perform on a CD-R/CD-RW disc, such as finalizing a recorded CD-R/CD-RW disc so that it can be played on a conventional CD player, or erasing all or part of the tracks on a CD-RW disc.

# Finalizing

Finalizing is the operation of writing the TOC (Table Of Contents: information about the recorded data, such as the number of songs and the playback start time of each song) to the CD-R/CD-RW media.

A disc recorded on the CDR632 cannot be played back on a conventional CD player until the final TOC has been written to the disc. (The CDR632 itself will be able to play the disc even before it has been finalized.)

Normally, no additional recording can be done on CD-R/CD-RW media once it has been finalized. However in the case of a CD-RW, you can "un-finalize" the disc so that additional recording can be performed.



# **1** Insert a recorded CD-R/CD-RW disc into the disc tray.

**2** While stopped, press the FINALIZE/INS button on the front panel or the FINALIZE button on the remote control unit.

The display will indicate "FINALIZE?".

If you decide to cancel the operation, press the FINALIZE/INS button (or the FINALIZE button on the remote control unit) once again.

#### **3** Press the ENTER button.

The display will indicate **"Sure?"**. If you decide to cancel the operation, press the STOP button.

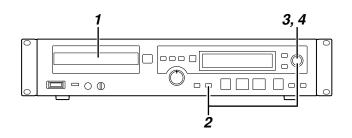
# **4** To execute the operation, press the ENTER button once again.

Finalization will begin, and the display will indicate the estimated time remaining until completion as "TOC X:XX".

When finalization is finished, the display will indicate "Complete". All operating buttons are disabled while finalization is being performed.

# **Un-finalizing**

Un-finalizing is an operation that allows further recording on a CD-RW disc that has been finalized.



- **1** Insert a finalized CD-RW disc into the disc tray.
- 2 While stopped, press the ERASE/DEL button on the front panel (or the ERASE button on the remote control unit), and use the MULTI JOG dial (or the SKIP buttons on the remote control unit) to select "UNFINALIZE?".

If you decide to cancel the operation, press the ERASE/DEL button (or the remote control unit SKIP buttons) once again.

#### **3** Press the ENTER button.

The display will indicate **"Sure?"**. If you decide to cancel the operation, press the

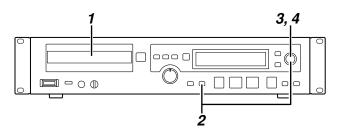
- If you decide to cancel the operation, press the STOP button.
- **4** To execute the operation, press the ENTER button once again.

Un-finalization will begin, and the display will indicate the estimated time remaining until completion as **"Erase X:XX"**.

When un-finalization is finished, the display will indicate "Complete".

# Refreshing

In some cases, the CDR632 may be unable to recognize a disc, perhaps because finalization was aborted by a power failure or other reason, or because the disc has been used by a computer. In such cases, refreshing the disc as described below may enable the CDR632 to detect it.



#### **1** Insert the disc into the disc tray.

2 While stopped, press the ERASE/DEL button on the front panel (or the ERASE button on the remote control unit), and use the MULTI JOG dial (or the SKIP buttons on the remote control unit) to select "REFRESH?".

If you decide to cancel the operation, press the ERASE/DEL button (or the ERASE button on the remote control unit) once again.

#### **3** Press the ENTER button.

The display will indicate "Sure?".

If you decide to cancel the operation, press the (stop) button.

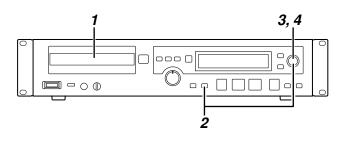
# **4** To execute the operation, press the ENTER button once again.

Refresh will begin, and the display will indicate the estimated time remaining until completion as "Erase X:XX".

When refresh is finished, the display will indicate "Complete".

# **Erasing a disc**

This operation erases all tracks that have been recorded on a CD-RW, allowing the disc to be recorded from a blank state.



#### Caution

The contents of the erased disc will be lost forever. Use this operation with great caution so that you don't erase an important disc by mistake.

- **1** Insert a recorded CD-RW disc into the disc tray.
- 2 While stopped, press the ERASE/DEL button on the front panel (or the ERASE button on the remote control unit), and use the MULTI JOG dial (or the SKIP buttons on the remote control unit) to select "ERASE DISC?". If you decide to cancel the operation, press the ERASE/DEL button (or the ERASE button on the remote control unit) once again.

#### **3** Press the ENTER button.

The display will indicate "Sure?".

If you decide to cancel the operation, press the (stop) button.

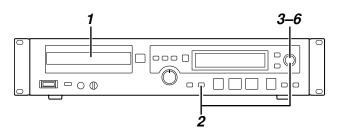
# **4** To execute the operation, press the ENTER button once again.

Disc erasure will begin, and the display will indicate the estimated time remaining until completion as "Erase X:XX".

When the disc has been erased, the display will indicate "Complete".

# **Erasing a track**

This operation erases the specified track and all subsequent tracks from a recorded CD-RW disc.



#### Caution

The contents of the erased track(s) will be lost forever. Use this operation with great caution so that you don't erase important tracks by mistake.

- **1** Insert a recorded CD-RW disc into the disc tray.
- 2 While stopped, press the ERASE/DEL button on the front panel (or the ERASE button on the remote control unit), and use the MULTI JOG dial (or the SKIP buttons on the remote control unit) to select "ERASE TRACK?". If you decide to cancel the operation, press the

ERASE/DEL button (or the ERASE button on the remote control unit) once again.

#### **3** Press the ENTER button.

The display will indicate **"Erase XX-XX"** (first track to be erased — last track).

If you decide to cancel the operation, press the ERASE/DEL button (or the ERASE button on the remote control unit).

**4** Use the MULTI JOG dial (or the SKIP buttons on the remote control unit) to select the first track to be erased.

If you decide to cancel the operation, press the ERASE/DEL button (or the ERASE button on the remote control unit).

#### **5** Press the ENTER button.

The display will indicate **"Sure?"**. If you decide to cancel the operation, press the STOP button.

**6** To execute the operation, press the ENTER button once again.

Track erasure will begin, and the display will indicate the estimated remaining time until completion as **"Erase X:XX"**.

When the track erasure is finished, the display will indicate "Complete".

# 7 – Entering names

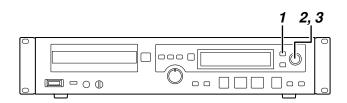
#### Caution

If you turn off the power without finalizing after entering a name, the TOC will not be written, and the name you entered will be discarded. You must execute the finalize operation to write the TOC.

You can use the "TEXT EDIT?" menu item to enter a name for a disc or track.

# Naming a disc

Here's how to assign a name to a CD-R/CD-RW disc.



**1** While stopped, access the "TEXT EDIT?" menu item and press the ENTER button.

The display will indicate "Text> XXX" (you can choose Disc or a track number 01–99).

- 2 Press the ENTER button, and use the MULTI JOG dial (or the SKIP buttons on the remote control unit) to select "Text> Disc".
- **3** Press the ENTER button.

The character display area will show the current disc name, and name edit mode will be active (the cursor will blink).

**4** Enter a name as described below, and press the MENU button on the front panel (or the MENU button on the remote control unit) to finalize your input.

In name edit mode, you can assign a name as follows.

#### To select the type of characters

Press the DISPLAY button on the front panel or remote control unit to switch between the following two types of characters.

- Lowercase alphabet/Symbols (nothing shown in display)
- Uppercase alphabet/Symbols ("CAPS" lit in display)

#### To enter characters

Use the MULTI JOG dial (or the SKIP buttons on the remote control unit) to select characters, and press the ENTER button to confirm your choice.

#### To move the cursor

Use the SYNC REC/< button or FADER/> button. Pressing the SYNC REC/< button moves the cursor to the left, and pressing the FADER/> button moves the cursor to the right.

You can also use the remote control unit SYNC REC or FADER buttons to move the cursor.

#### To delete characters

Move the cursor to the character you want to delete, and press the ERASE/DEL button (or the ERASE button on the remote control unit).

#### To insert characters

Locate the cursor on where you want to insert a character, and press the FINALIZE/INS button (or the FINALIZE button on the remote control unit).

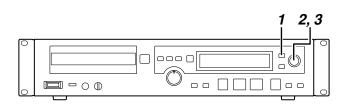
#### To correct characters

Move the cursor to the character you want to correct, and enter the desired character.

If you've edited text and then attempt to remove the disc without writing the TOC, a message of **Sure? Text!** will appear. If you want to remove the disc without writing the TOC, press the  $\triangle$  (Open/Close) button once again while the **Sure? Text!** message is shown (the text you entered will be discarded).

# Naming a track

Here's how to assign a name to a track recorded on a CD-R/CD-RW disc.



**1** While stopped, access the "TEXT EDIT?" menu item and press the ENTER button.

The display will indicate "Text> XXX" (you can choose Disc or a track number 01–99).

**2** Press the ENTER button, and use the MULTI JOG dial (or the SKIP buttons on the remote control unit) to select a track number 01–99.

#### **3** Press the ENTER button.

The character display area will show the current track name, and name edit mode will be active (the cursor will blink).

#### Note

If there currently is no name, nothing will be displayed (the cursor will only blink).

4 Enter a name in the same way as for a disc name, and press the MENU button on the front panel (or the MENU button on the remote control unit) to finalize your input. If you've edited text and then attempt to remove the disc without writing the TOC, a message of Sure? Text! will appear. If you want to remove the disc without writing the TOC, press the ▲ (Open/Close) button once again while the Sure? Text! message is shown (the text you entered will be discarded).

# 8 – Messages

### Error messages

If one of the following messages should appear, press the  $\blacksquare$  (stop) button and then deal with the cause of the error. If you are still unable to resolve the problem, please contact service center nearby.

#### • Can't Rec!

Cannot record. Either erase the contents of the disc (for a CD-RW), or use a different recordable disc.

#### • Disc Error!

There is a problem with the disc. Use a different disc.

#### • Disc Full!

Recording is not possible because there is no more recordable time or recordable track on the disc.

#### • Text Full!

You have reached the maximum number of characters.

#### • Sure? Text!

After editing text, you attempted to open the tray without finalizing. If you wish to proceed (and discard the text you entered), press the  $\triangle$  (Open/Close) button once again.

#### • Drive Error!

There is a problem with the CD-RW drive.

#### • D-IN UNLOCK!

No digital unit is connected to the DIGITAL IN jack (or the power of the connected digital unit is turned off). Check the connection and power of your digital unit.

#### • Not Audio!

The signal being received at the DIGITAL IN jack is not an audio signal.

#### • Erase Error!

An error occurred while erasing.

#### • Not Fs44.1k!

The sampling frequency of the digital input is not 44.1 kHz. Please turn the SRC on.

• PGM Empty!

Nothing has been programmed.

• PGM Full!

You have already programmed 99 songs.

• Format Err!

This format cannot be read on the unit.

#### • Can't Edit!

The editing operation cannot be executed due to operational restrictions.

• Can't Sel!

The menu or other item cannot be selected because it is prohibited.

• Can't INCR!

The track cannot be incremented because M\_TR\_INCR is OFF.

Rec Error!

An error occurred while recording. Please re-record.

- **No DIR!** There is no directory that contains a file.
- **Decode Err!** Failed to playback an MP3 file.

# Messages during operation

- Blank Disc An unrecorded disc is inserted.
- **Complete** An operation such as finalize or erase has been completed.
- Now OPC.

Calibration is being performed to match the characteristics of the disc being used so that it can be recorded optimally.

- **Disc Repair** The disc is being repaired.
- **PMA Writing (PMA = Program Memory Area)** The recorded content is being written to the disc.
- **TOC Reading.** TOC data is being read.

# 9 - Troubleshooting

- Power does not turn on Is the power cable firmly plugged in?
- "Disc Error!" appears ٠ Could the disc be soiled? Clean or replace the disc.
- Can't playback

Could condensation have occurred? If condensation has occurred, remove the disc and leave the unit powered-on for several hours.

#### No sound ٠

Check the connections to your monitor system once again. Also check the volume settings of your amp.

#### Can't record

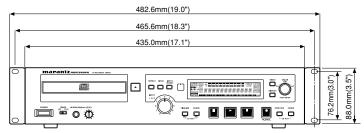
- Check the connections once again.
- Check the recording level.
- You can't record on a playback-only CD. Please use a recordable CD.
- A setting you changed is not memorized. The CDR632 saves backup copies of your settings whenever you change mode settings, however, the backup may fail if you turn off the power immediately. Avoid turning off the power immediately after making any change.

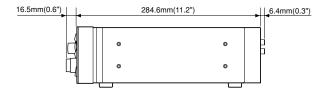
#### • Noise or static can be heard. Please re-position the unit away from strong

sources of magnetism such as a television.

# 10 – Specifications

Recordable discs Quantization bit depth Sampling frequency	CD-R, CD-R-DA, CD-RW, CD- 16-bit linear 44.1 kHz	RW-DA (High Speed CD-RW is supported)	
Frequency response	20Hz-20KHz		
	±0.8 dB (playback)		
	±1.0 dB (recording)		
S/N	95 dB or better (playback)		
Dynamic range	90 dB or better (recording) 95 dB or better (playback)		
Dynamic range	90 dB or better (recording)		
Distortion	0.006% or less (playback)		
	0.008% or less (recording)		
Channel separation	90 dB or better (playback: 1 kHz		
	80 dB or better (recording: 1 kH		
Wow and flutter	below measurable limits (less the		
Analog inputs	unbalanced input Nominal input level	RCA jack -10 dBV (at full scale: -16 dB)	
	Minimum input level	-19 dBV or higher (minimum input level that can	
	Willing in put level	be adjusted to nominal level (Full Scale –16 dB))	
	Input impedance	$22 \text{ k}\Omega \pm 10\%$ (unbalanced)	
Analog outputs	unbalanced output	RCA jack	
	Nominal output level	$-10 \text{ dBV} \pm 2 \text{ dB}$	
		(at full scale: -16 dB)	
	Maximum output level	$+6 \text{ dBV} \pm 2 \text{ dB}$	
Phones output	Output impedance stereo phone jack (1/4")	$600\Omega \pm 10\%$ (unbalanced)	
I nones output	20 mW or greater		
	$32\Omega$ load		
Digital output	COAXIAL	RCA jack (IEC-60958 Type II)	
	OPTICAL	TOSLINK (IEC-60958 Type II)	
Power supply /U1B	120 VAC/60Hz		
/N1B	230 VAC/50Hz		
Current consumption	10 W/		
/U1B /N1B	18 W 20W		
Dimensions	Width 482.6 mm (19.0")		
Dimensions	Height 98.0 mm (3.9")		
	Depth 307.5 mm (12.1")		
Weight	4.9 kg (10.8 lbs)		
Dimensions			





# 11 – Limited Warranty

Your Marantz Professional product is warranted against manufacturer defects in material and workmanship for a period of one year parts and labor. Marantz will pay for labor and material expenses for items covered by this limited warranty.

Except as specified below, this warranty covers defects in material and workmanship. The following are not covered under warranty:

- 1. Damage, deterioration, malfunction or failure to meet performance specifications resulting from:
  - a) Accidents, acts of nature, misuse, abuse, neglect or unauthorized product modification.
  - b) Improper installation, removal or maintenance, or failure to follow supplied instructions.
  - c) Repair or attempted repair by a non-Marantz authorized agent.
  - d) Any shipment (claims must be presented to the carrier).
  - e) Any cause other than a defect of manufacturing.
- 2. Cleaning, check-ups with no fault found or changes incurred for installation, removal or reinstallation of the product.
- 3. Any serialized product on which the serial number has been defaced, modified or removed.
- 4. Batteries and battery chargers.
- 5. Accessories, including but not limited to: cables, mounting hardware and brackets, cleaning accessories, power cords and adapters, and carry cases.

#### Non-transferable warranty

This Warranty may be enforced only by the original purchaser.

#### Service Information (Americas only)

- If your unit needs service in the USA, contact our service referral at the appropriate telephone number indicated below. We will advise you of the name and location of one or more authorized service centers from which service may be obtained. Please do not return the unit directly to us.
- 2. You must pay any shipping charges if it is necessary to ship the product for service. If the necessary repairs are covered by the warranty, we will pay return shipping charges to your location anywhere in the United States or its territories.
- 3. Whenever warranty service is required, you must present the original dated sales receipt or other proof of date purchased.

#### Limitation of Implied warranties

All implied warranties, including warranties of merchantability and fitness for a particular purpose, are limited in duration to the length of this warranty.

#### **Exclusion of Damages (Americas only)**

Liability for any defective product is limited to the product's repair or replacement at manufacturer's option. Manufacturer shall not be liable for damage to other products caused by any defects in Marantz products, damages based on inconvenience or loss of use of the product, or any other damages, whether incidental, consequential, or otherwise.

Some States do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

# How state law relates to the warranty (Americas only)

This warranty gives you specific legal rights, and you may have other rights which vary from State to State.

# Marantz Professional service number: (Americas only)

Marantz Professional Factory Service (866)405-2154 (Toll-free) Products purchased outside of the United States, its possessions or territories. This warranty is enforcable only in the United States and its possessions or territories.

#### AMERICA

D&M Professional America http://www.d-mpro.com

#### EUROPE

D&M Professional Europe http://www.d-mpro.eu.com

#### ASIA/OTHERS

- Marantz Korea Co.,Ltd. http://www.marantz.co.kr DENON Asia Co.,Ltd.
- http://www.denon.com.hk
- D&M Electronics Singapore Pte. Ltd. http://www.denonsingapore.com





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